```
40 OF 50 CAPLUS COPYRIGHT 2003 ACS on STN
           Citing
   Full
         References
   Text
    1995:785110 CAPLUS
AN
    123:160827
DN
    Use of N-alkyl derivatives of 1,5-dideoxy-1,5-imino-D-glucitol for the
TI
     treatment of hepatitis B virus infections
    Block, Timothy M.; Blumberg, Baruch S.; Dwek, Raymond A.
IN
    G.D. Searle and Co., USA; Monsanto Co.
PA
    PCT Int. Appl., 29 pp.
SO
    CODEN: PIXXD2
DT
    Patent
    English
LA
FAN.CNT 2
                                        APPLICATION NO. DATE
                     KIND DATE
     PATENT NO.
                                         ______
                     ____
                                         WO 1994-US14548 19941223
                     A1
                           19950720
PΙ
     WO 9519172
        W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB,
            GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW,
            NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN
         RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU,
            MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN,
            TD, TG
                      AΑ
                                         CA 1994-2181033 19941223
                           19950720
     CA 2181033
                           19950801
                                         AU 1995-14037
                                                          19941223
                      A1
     AU 9514037
                                                          19941223
                           19961030
                                        EP 1995-905416
     EP 739205
                     A1
                     B1 19991124
     EP 739205
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE
                                        CN 1994-195049 19941223
                           19970507
     CN 1149253 A
     CN 1074921
                     В
                           20011121
                     T2 19970819
                                         JP 1994-519024
                                                          19941223
     JP 09508111
                     E 19991215
                                         AT 1995-905416
                                                          19941223
     AT 186836
                                                          19941223
                                         ES 1995-905416
                     T3 20000301
     ES 2140652
                                                          19960711
                                         US 1996-676153
                     A 20000314
     US 6037351
                     A
                           19940113
PRAI US 1994-181519
     WO 1994-US14548 W 19941223
     A method is disclosed for the treatment of hepatitis B virus (HBV)
AΒ
     infections, which comprises administering to the infected host an N-alkyl
     deriv. of 1,5-dideoxy-1,5-imido-D-glucitol in which the alkyl group
     contains from 3 to 6 carbon atoms. In examples, N-butyl-1,5-dideoxy-1,5-
     imino-D-glucitol was shown to suppress the secretion of HBV particles and
     to cause intracellular retention of HBV DNA in both stably transfected
     HepG 2.2.15 cells and HBV-infected HepG 2 cells.
IT 72599-27-0, N-Butyl 1-deoxynojirimycin
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES
        (deoxynojirimycin alkyl derivs. for treatment of hepatitis B
        virus infections)
     72599-27-0 CAPLUS
RN
     3,4,5-Piperidinetriol, 1-butyl-2-(hydroxymethyl)-, (2R,3R,4R,5S)- (9CI)
CN
     (CA INDEX NAME)
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Absolute stereochemistry.

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AA 19990819
                                      CA 1999-2319713 19990212
    CA 2319713
                  A1 19990830
                                      AU 1999-27595
                                                      19990212
    AU 9927595
    AU 762125
                   B2 20030619
                                                      19990212
                   A 20000214
                                      ZA 1999-1142
    ZA 9901142
                         20001017
                                      BR 1999-7882
                                                      19990212
    BR 9907882
                   Α
    EP 1061922
                   A1 20001227
                                      EP 1999-908079 19990212
       R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, FI
                                      JP 2000-531168 19990212
    JP 2002502875 T2 20020129
                    Α
                         19980212
PRAI US 1998-23401
                   P
                         19980212
    US 1998-74508P
                   P
                         19970214
    US 1997-41221P
                    W 19990212
    WO 1999-US1874
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OS MARPAT 131:165293

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Methods and compns. are provided for treating hepatitis virus infections in mammals, esp. humans. The methods comprise (1) administering N-substituted-1,5-dideoxy-1,5-imino-D-glucitol compds. alone or in combination with nucleoside antiviral agents, nucleotide antiviral agents, mixts. thereof, or immunomodulating/immunostimulating agents, or (2) administering N-substituted-1,5-dideoxy-1,5-imino-D-glucitol compds. alone or in combination with nucleoside antiviral agents, nucleotide antiviral agents, or mixts. thereof, and immunomodulating/immunostimulating agents.

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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ANSWER 33 OF 50 CAPLUS COPYRIGHT 2003 ACS on STN
L8
           Citing
   Text
         References
    2000:172843 CAPLUS
AN
    132:175813
DN
    Method using an N-alkyl derivative of 1,5-dideoxy-1,5-imino-D-glucitol for
TI
    inhibiting hepatitis B virus
    Block, Timothy M.; Blumberg, Baruch S.; Dwek, Raymond A.
IN
    G. D. Searle & Co., USA
PA
    U.S., 14 pp., Cont.-in-part of U.S. Ser. No. 181,519, abandoned.
SO
    CODEN: USXXAM
DT
    Patent
    English
LA
FAN.CNT 2
                    KIND DATE
                                         APPLICATION NO. DATE
    PATENT NO.
                                          _____
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                    A
                           20000314
                                          US 1996-676153
                                                           19960711
PΙ
    US 6037351
                           19950720
                                         WO 1994-US14548 19941223
                     A1
     WO 9519172
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            GE, HU, JP, KE, KG, KP, KR, KZ, LK, LT, LU, LV, MD, MG, MN, MW,
            NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN
        RW: KE, MW, SD, SZ, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU,
            MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN,
            TD, TG
                      B2
                           19940113
PRAI US 1994-181519
                     M
                           19941223
     WO 1994-US14548
     A method is disclosed for the treatment of hepatitis B virus (HBV)
ΑB
     infections which comprises administering to the infected host an N-alkyl
     deriv. of 1,5-dideoxy-1,5-imino-D-glucitol in which the alkyl group
     contains from 3 to 6 carbon atoms.
             THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 21
             ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 35 OF 50 CAPLUS COPYRIGHT 2003 ACS on STN
L8
   Full
           Citing
         References
   Text
     1999:529023 CAPLUS
AN
     131:165293
DN
     Use of N-substituted-1,5-dideoxy-1,5-imino-D-glucitol compounds for
TI
     treating hepatitis virus infections
     Mueller, Richard A.; Bryant, Martin L.; Partis, Richard A.
IN
     G.D. Searle & Co., USA
PΑ
     PCT Int. Appl., 138 pp.
SO
     CODEN: PIXXD2
     Patent
DT
     English
LA
FAN.CNT 2
                                         APPLICATION NO. DATE
                  KIND DATE
     PATENT NO.
                           _____
                     ____
     WO 9940916 A1
                           19990819
                                          WO 1999-US1874
                                                           19990212
PΙ
            AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP,
             KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN,
             MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM,
             TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU,
             TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                          US 1998-23401
                                                           19980212
     US 2003100532
                           20030529
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A1

The effects were studied of tunicamycin and inhibitors of the processing AB of N-linked glycans, including N-methyl-1-deoxynojirimycin, castanospermine, mannodeoxynojirimycin, and swainsonine, on the transport of glycoprotein E2 and the intracellular maturation of the coronavirus mouse hepatitis virus A59. Indirect immunofluorescence staining with monoclonal antibodies revealed that glycoprotein E2 exhibits different antigenic properties depending on the presence and the structure of the N-linked oligosaccharides and that efficient transport of glycoprotein E2 to the plasma membrane requires the removal of glucose residues. In the presence of tunicamycin, the nonglycosylated E2 apoprotein was synthesized in normal amts. and readily acylated throughout the infectious cycle. This E2 species could not be detected on the surface of mouse hepatitis virus A59-infected cells with indirect immunofluorescence staining or lactoperoxidase labeling. N-Methyl-1-deoxynojirimycin and catanospermine, both of which selectively inhibited the processing glucosidases, caused a drop in virion formation by 2 log steps and a drastic delay in the surface expression of glycoprotein E2. The E2 species synthesized under such conditions was acylated but accumulated intracellularly in a compartment distinct from the Golgi. Concomitantly, synthesis of the matrix glycoprotein E1 of mouse hepatitis virus A59 was drastically impaired. Mannodeoxynojirimycin and swainsonine, which block later stages of the processing pathway, had less or no effect on the transport of glycoprotein E2 and formation of virus particles.

IT 69567-10-8

RL: BIOL (Biological study)
(glycoprotein E2 of mouse hepatitis virus intracellular migration response to)

RN 69567-10-8 CAPLUS

CN 3,4,5-Piperidinetriol, 2-(hydroxymethyl)-1-methyl-, (2R,3R,4R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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L8 ANSWER 41 OF 50 CAPLUS COPYRIGHT 2003 ACS on STN

Text References

AN 1994:671340 CAPLUS

DN 121:271340

TI N-Butyldeoxynojirimycin is a novel inhibitor of glycolipid biosynthesis. Secretion of human **hepatitis** B virus is inhibited by the imino sugar N-butyldeoxynojirimycin

AU Ganem, Bruce

CS Cornell Univ., USA

SO Chemtracts: Organic Chemistry (1994), 7(2), 106-7 CODEN: CMOCEI; ISSN: 0895-4445

DT Journal

LA English

AB N-butyldeoxynojirimycin inhibited the biosynthesis of glycolipids and treated cells infected with **hepatitis** B virus.

IT 72599-27-0, N-Butyldeoxynojirimycin

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(butyldeoxynojirimycin inhibition of glycolipid biosynthesis and human hepatitis B virus)

RN 72599-27-0 CAPLUS

CN 3,4,5-Piperidinetriol, 1-butyl-2-(hydroxymethyl)-, (2R,3R,4R,5S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L8 ANSWER 50 OF 50 CAPLUS COPYRIGHT 2003 ACS on STN

Full Citing Text References

AN 1985:592966 CAPLUS

DN 103:192966

TI The effects of processing inhibitors of N-linked oligosaccharides on the intracellular migration of glycoprotein E2 of mouse **hepatitis** virus and the maturation of coronavirus particles

AU Repp, Reinald; Tamura, Teruko; Boschek, C. Bruce; Wege, H.; Schwarz, Ralph T.; Niemann, Heiner

CS Inst. Med. Virol., Justus-Liebig-Univ., Giessen, D-6300, Fed. Rep. Ger.

SO Journal of Biological Chemistry (1985), 260(29), 15873-9 CODEN: JBCHA3; ISSN: 0021-9258

DT Journal

LA English